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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/550,970	09/26/2005	Jean Monne	102114.00018	4137

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EXAMINER

SAINT CYR, LEONARD

ART UNIT	PAPER NUMBER
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2626

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/550,970	Applicant(s) MONNE ET AL.	
	Examiner Leonard Saint-Cyr	Art Unit 2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 May 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 05/04/07 have been fully considered but they are not persuasive.
2. Applicant argues that Thelen et al., do not teach selecting at least one signal to be transmitted to a server, from the audio signal to be recognized and a signal indication calculated modeling parameter (Amendment, pages 8 – 10).

The examiner disagrees, Thelen et al., teach that the speech controller direct part (or all) of the speech input signal to the server station if a performance indicator for a recognition result of the speech recognizer in the local client station is below a predetermined threshold. It may be preferred to route also earlier speech material to the server station, allowing the server station to better synchronize with speech signal, and optionally choose suitable recognition models, such as acoustic or acoustic language models base on earlier part of the signal (col.9, lines 19 – 33). By only routing a part of speech signal, or optionally routing acoustic models based on the earlier part of the signal to the server station implies selecting between two signals and transmitting the selected one to a server, since the routed signal at the server is based on the performance of the local recognizer.

3. Applicant argues that neither Thelen et al., nor Yang et al., teach that the control means of the server directs the signal either to the input signal modeling parameter

calculation means (and then to the recognition means) or to the recognition mean, depending upon the nature of the signal received from the terminal (Amendment, pages 11 –13).

The examiner disagrees, Yang et al., teach that the client side data will be transmitted to the C-DSR server as a message packet, wherein the message packet comprises configuration data and speech data. The configuration controller is used to generate a recognition adjustment parameter according to the configuration data, and subsequently sending the speech data to the C-DSR engine to proceed speech recognition (paragraphs, 26, 28 – 30). Using the configuration controller to adjust recognition parameters according the configuration data, and then sending the speech data for proceeding speech recognition implies directing the signal either to the input signal modeling parameter calculation means and then to the recognition means depending upon the nature of the signal received from the terminal, since the message packet received contains two types of data, configuration data and speech data.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

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5. Claims 9, and 11 are rejected under 35 U.S.C. 102(a) as being anticipated by Thelen et al., (US Patent 6,487,534).

As per claim 9, Thelen et al., teach a user terminal in a distributed speech recognition system comprising one server suitable for communication with said user terminal, said user terminal comprising:

means for obtaining an audio signal to be recognized (fig. 7, elements 740, and 750; col.1, line 7);

first audio signal modeling parameter calculation means ("characterized by an HMM, whose parameters are estimated"; col.5, lines 23 – 25);

first control means for selecting at least one signal (a part of the speech input) to be transmitted to the server, from the audio signal to be recognized and a signal indicating the calculated modeling parameters (fig.3, element 335; col.8, lines 6 – 10).

As per claim 11, Thelen et al., further disclose that recognition means (recognition unit) to associate at least one stored form with the modeling parameters (estimated parameters; col.5, lines 23 – 25).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1 – 8, 12 – 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thelen et al., (US Patent 6,487,534) over Yang et al., (US PAP 2004/0044522)

As per claim 1, Thelen et al., teach a distributed speech recognition system comprising at least one user terminal and at least one server suitable for communication with one another via a telecommunications network, wherein the user terminal comprises:

means for obtaining an audio signal to be recognized (fig. 7, elements 740, and 750; col.1, line 7);

first audio signal modeling parameter calculation means ("characterized by an HMM, whose parameters are estimated"; col.5, lines 23 – 25);

first control means for selecting at least one signal (a part of the speech input) to be transmitted to the server, from the audio signal to be recognized and a signal indicating the calculated modeling parameters (fig.3, element 335; col.8, lines 6 – 10); and

wherein the server comprises:

means for receiving the selected signal ("speech equivalent signal is received in the server station) originating from the user terminal (fig.7, elements 770, and 780; col.9, lines 53 – 54);

recognition means (recognition unit) for associating at least one stored form with input parameters (estimated parameters; col.5, lines 23 – 25).

However, Thelen et al., do not specifically teach a second input signal modeling parameter calculation means; second control means for controlling the second calculation means and the speech recognition mean in order if the selected signal received by the reception means is an audio signal, to activate the second parameter calculation means by addressing the selected signal to them as an input signal, and to address the parameters calculated by the second calculation means to the recognition means as input parameters, and if the selected signal received by the reception means indicates modeling parameters, to address said indicated parameters to the recognition means as input parameters.

Yang et al., teach that the client side data will be transmitted to the C-DSR server as a message packet, wherein the message packet comprises configuration data and speech data. The configuration controller is used to generate a recognition adjustment parameter according to the configuration data, and subsequently sending the speech data to the C-DSR engine to proceed speech recognition (paragraphs, 26, 28 – 30; using the configuration controller to adjust recognition parameters according the configuration data, and then sending the speech data for proceeding speech recognition implies directing the signal either to the input signal modeling parameter calculation means and then to the recognition means depending upon the nature of the signal received from the terminal, since the message packet received contains two types of data, configuration data and speech data).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to generate adjusted model parameters based on message

packets received from the client as taught by Yang et al., in Thelen et al., because that would improve the speech recognition system by automatically classifies recognition results and their associated configuration data (paragraph 15).

As per claim 2, Thelen et al., further disclose a voice activation means (spoken activation command) recognized in the form of extracts of an audio signal, outside speech segment of voice inactivity periods (col.2, lines 15 – 20).

As per claim 3, Thelen et al., further disclose that the first control means are adapted to select the signal to be transmitted to the server ("selecting a part of the speech input) from at least the original audio signal, the audio signal to be recognized in the form of segments extracted by the voice activation means and the signal indicating modeling parameters calculated by the first parameters calculation means ("estimated parameters; col.5, lines 23 – 25; fig.3, element 335; col.8, lines 6 – 10; col.1, lines 57 – 64).

As per claim 4, Thelen et al., further disclose a voice activation means (spoken activation command) recognized in the form of extracts of an audio signal, outside speech segment of voice inactivity periods (col.2, lines 15 – 20).

However, Yang et al., teach that "the C-DSR server comprises a second control means (configuration controller) for controlling the second calculation means and the speech recognition means (generating a recognition adjustment parameter). The C-

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DSR server receives message packets from the client mobile device, and generating adjusted speech recognition parameters according to the configuration data, and then returns a result to the client mobile device after completing the recognition task” (generating adjusted speech recognition parameters based on the message packet received and returning recognition result to the client mobile, suggest activating the second parameter calculation means; considering the audio signal as input signal, and modeling parameters as input parameters, since the server returns a result to the mobile client when the recognition task is completed, based on input signal received from the client; paragraph 18, lines 8 – 12; paragraph 19, lines 1 - 8).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to generate adjusted model parameters based on message packets received from the client as taught by Yang et al., in Thelen et al., because that would improve the speech recognition system by automatically classifies recognition results and their associated configuration data (paragraph 15).

As per claim 5, Thelen et al., further disclose recognition means (recognition unit) for associating at least one stored form with the modeling parameters calculated by the first calculation means (“estimated parameters”; col.5, lines 23 – 25).

As per claim 6, Thelen further disclose that the first control means is adapted to select the signal to be transmitted to the server according to the result supplied by the

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terminal recognition means ("selecting part of the speech signal via network to the server station in dependence on the outcome of the recognition"; col.1, lines 57 – 64).

As per claim 7, Thelen et al., further disclose storage means ("harddisk or ROM") adapted to store the audio signal to be recognized (col.9, lines 63 – 64; col.10, lines 8 – 13).

As per claim 8, Thelen further disclose that the control means is adapted to select a signal to be transmitted to the server independently of the result supplied by the recognition means of the terminal ("the signal need not be directed to the local recognizer" implies transmitting to the server independently of the result supplied by the recognition means of the terminal; col.8, lines 24, and 25).

As per claims 10, and 12, Thelen et al., teach the system of claims 9, and 10. However Thelen et al., do not specifically teach that at least part of the parameter calculation means is downloaded from the server.

Yang et al., teach "the C-DSR server receives message packets from the client mobile device, and generating adjusted speech recognition parameters according to the configuration data, and then returns a result to the client mobile device after completing the recognition task" (generating adjusted speech recognition parameters based on the message packet received, suggests that the parameter calculation means is

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downloaded from the server, since adjusted speech parameters is generated on the server side; paragraph 18, lines 8 – 12).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to generate adjusted model parameters based on message packets received from the client as taught by Yang et al., in Thelen et al., because that would improve the speech recognition system by automatically classifies recognition results and their associated configuration data (paragraph 15).

As per claim 13, Thelen et al., teach a server in a distributed speech recognition system comprising one server suitable for communication with said user terminal, said user terminal comprising:

means for receiving from a user terminal, a signal selected at said terminal (fig. 7, elements 740, and 750; col.1, line 7);

input signal modeling parameter calculation means ("characterized by an HMM, whose parameters are estimated"; col.5, lines 23 – 25);

recognition means (recognition unit) for associating at least one stored from with input parameters (estimated parameters; col.5, lines 23 – 25).

However, Thelen et al., do not specifically teach a second input signal modeling parameter calculation means; second control means for controlling the second calculation means and the speech recognition mean in order if the selected signal received by the reception means is an audio signal, to activate the second parameter calculation means by addressing the selected signal to them as an input signal, and to

address the parameters calculated by the second calculation means to the recognition means as input parameters, and if the selected signal received by the reception means indicates modeling parameters, to address said indicated parameters to the recognition means as input parameters.

Yang et al., teach that the client side data will be transmitted to the C-DSR server as a message packet, wherein the message packet comprises configuration data and speech data. The configuration controller is used to generate a recognition adjustment parameter according to the configuration data, and subsequently sending the speech data to the C-DSR engine to proceed speech recognition (paragraphs, 26, 28 – 30; using the configuration controller to adjust recognition parameters according the configuration data, and then sending the speech data for proceeding speech recognition implies directing the signal either to the input signal modeling parameter calculation means and then to the recognition means depending upon the nature of the signal received from the terminal, since the message packet received contains two types of data, configuration data and speech data).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to generate adjusted model parameters based on message packets received from the client as taught by Yang et al., in Thelen et al., because that would improve the speech recognition system by automatically classifies recognition results and their associated configuration data (paragraph 15).

As per claims 14, and 15, Thelen et al., further disclose means for downloading voice recognition software resources via the telecommunications network to a terminal, the software resources including at least part of recognition means of the terminal (client station comprises communication means for communicating via the internet is formed by a combination of hardware and software implies means for downloading voice recognition software resources via the telecommunications network to a terminal; col.7, lines 38 – 46).

As per claim 16, Thelen et al., further disclose recognition means (recognition unit) for associating at least one stored form with modeling parameters (estimated parameters; col.5, lines 23 – 25).

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonard Saint-Cyr whose telephone number is (571) 272-4247. The examiner can normally be reached on Mon- Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on (571) 272-7602. The fax phone number for the organization where this application or proceeding is assigned is (571)-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LS
07/10/07


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